

SOUTH EAST VIEW OF EXISTING FRONT  
FACADE @90-94 REVERE ST





EXISTING FRONT FACADE CLOSE UP  
@90-94 REVERE ST



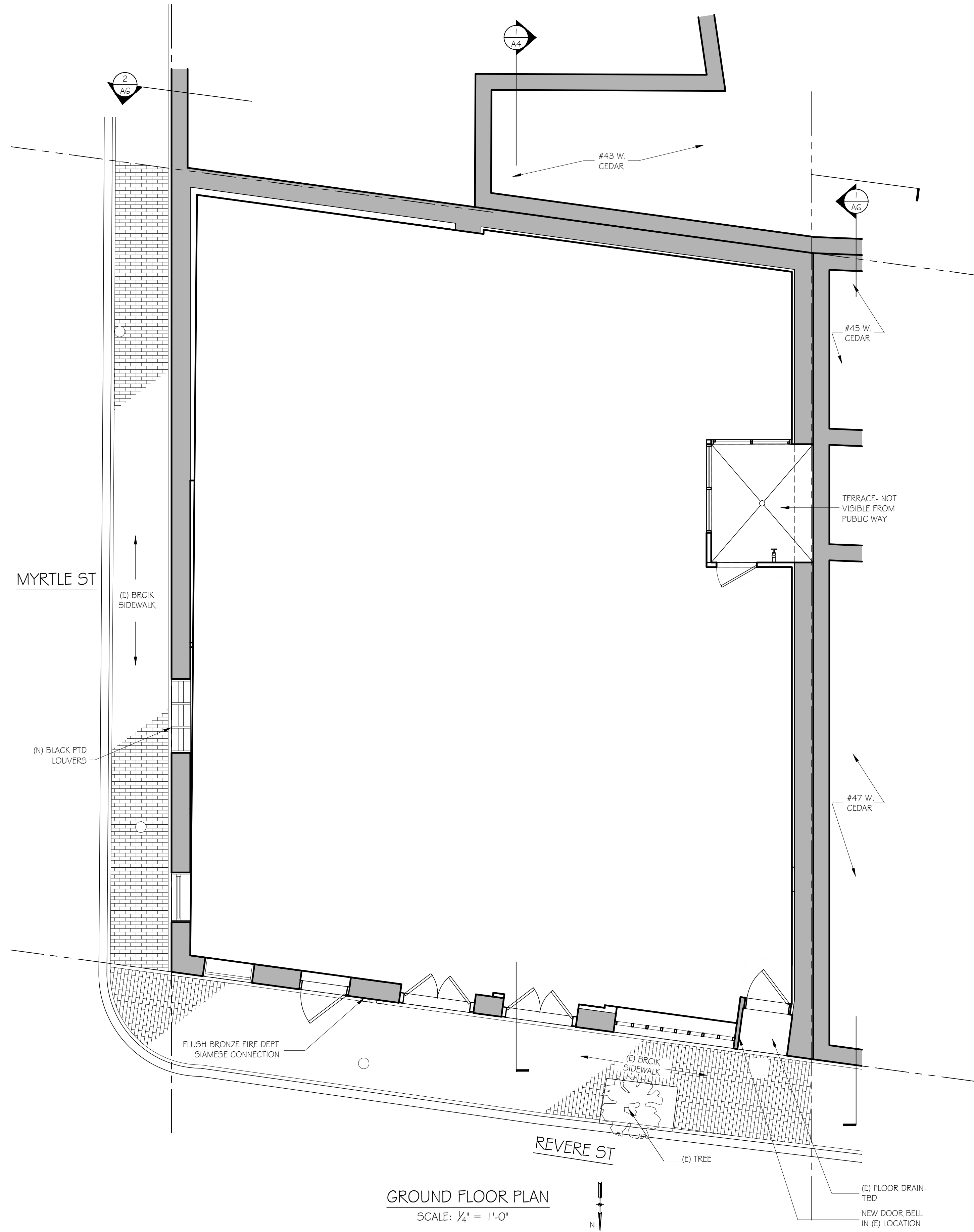
STREET VIEW OF EXISTING FRONT  
FACADE @90-94 REVERE ST



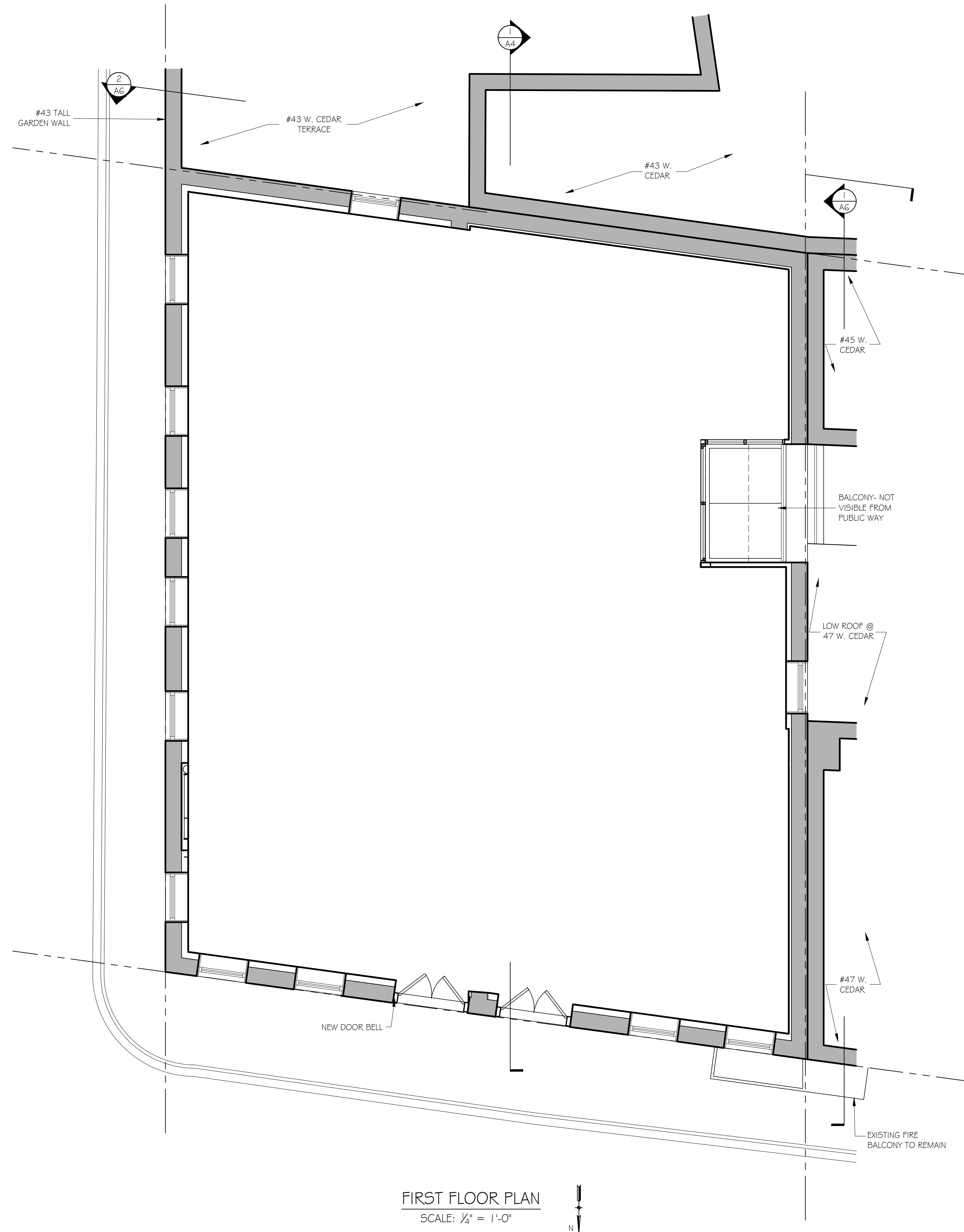
STREET VIEW OF EXISTING SIDE  
FACADE @90 REVERE ST



STREET VIEW OF EXISTING REAR  
FACADE @90-94 REVERE ST



GROUND FLOOR PLAN  
SCALE: 1/4" = 1'-0"

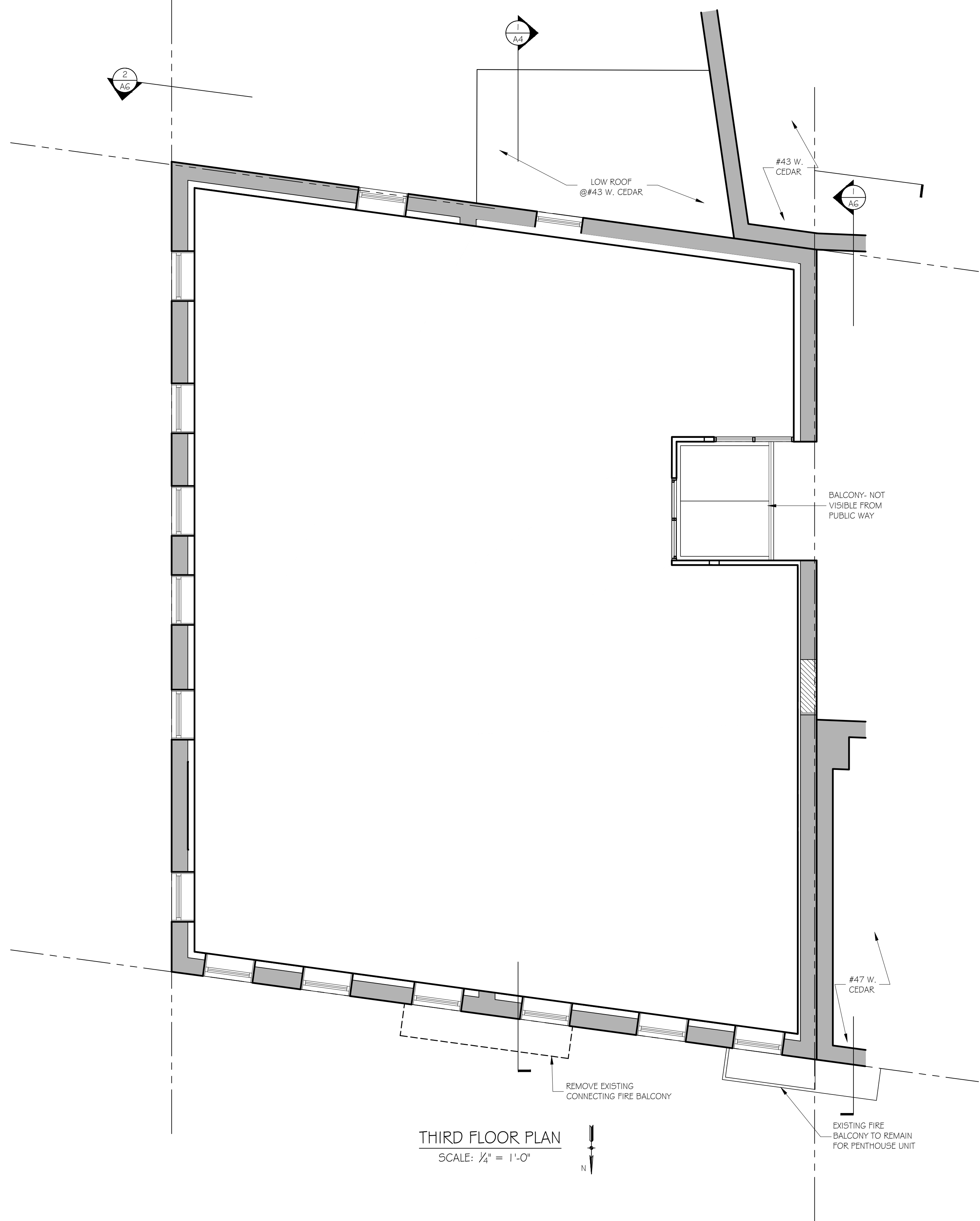
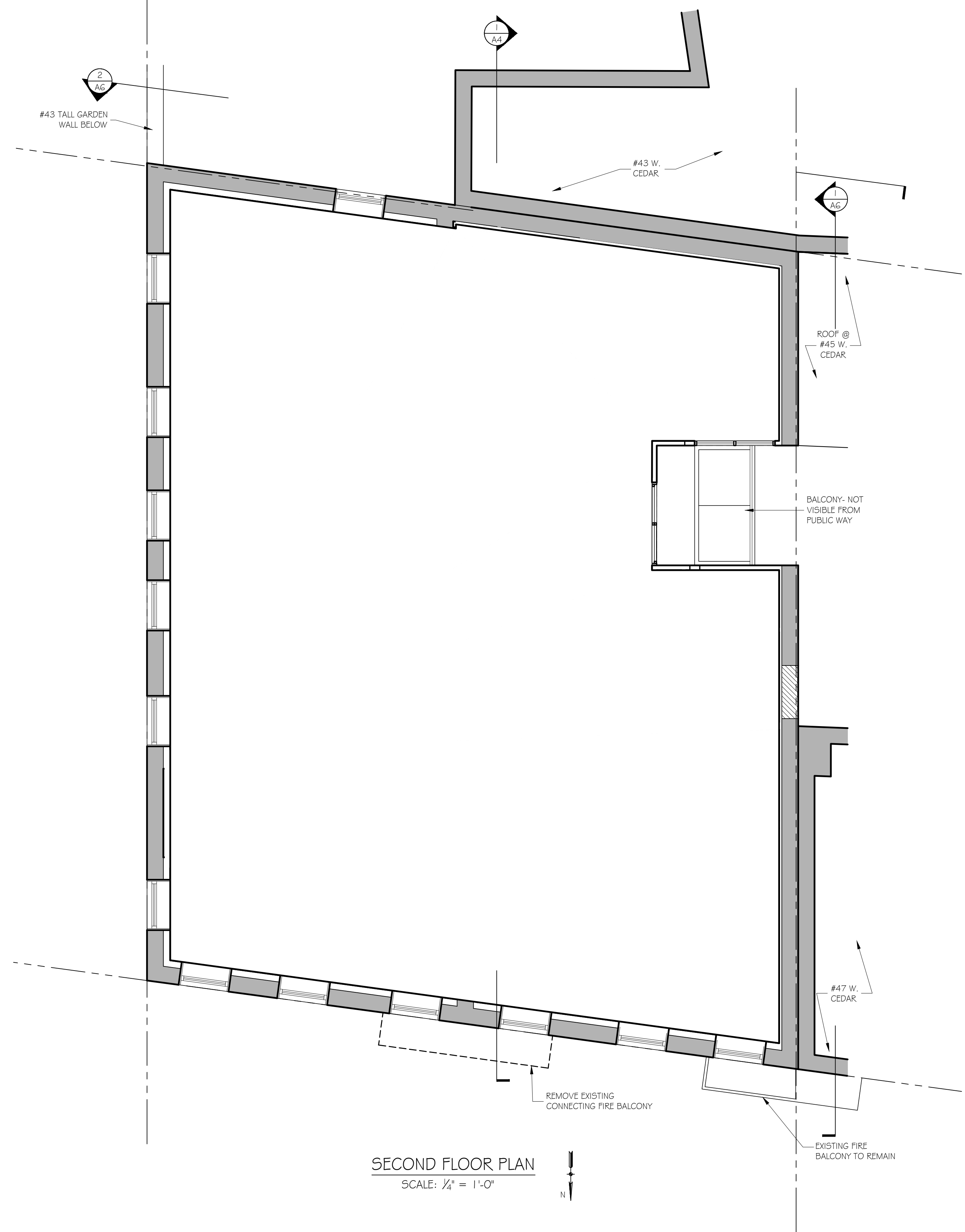


FIRST FLOOR PLAN  
SCALE: 1/4" = 1'-0"

JOB NO: 2513	SCALE: 1/4" = 1'-0"
DATE: 03.06.26	REVISED

90-94 REVERE STREET  
BOSTON, MA

GROUND AND FIRST  
FLOOR PLANS



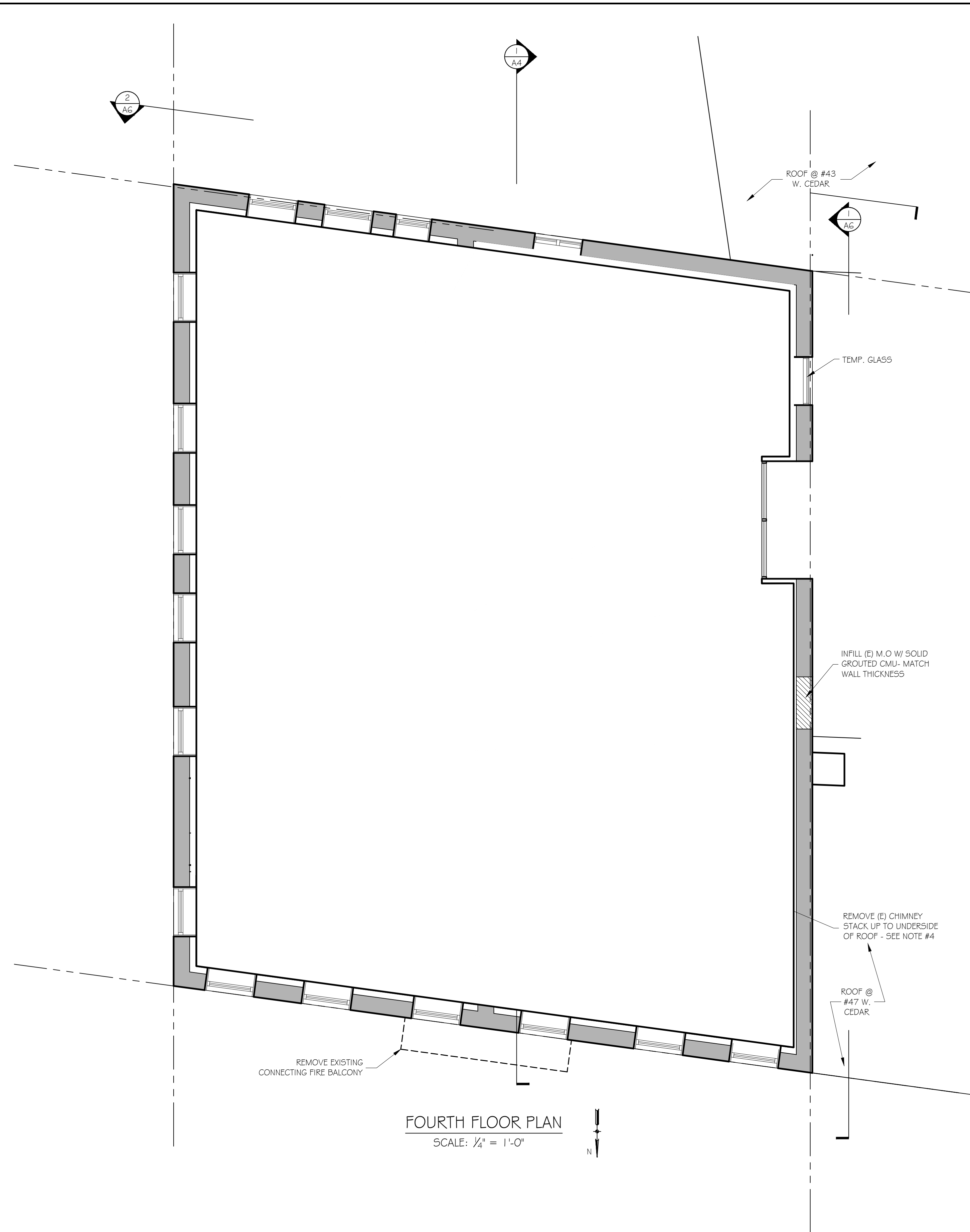
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**GD** GRASSI DESIGN GROUP  
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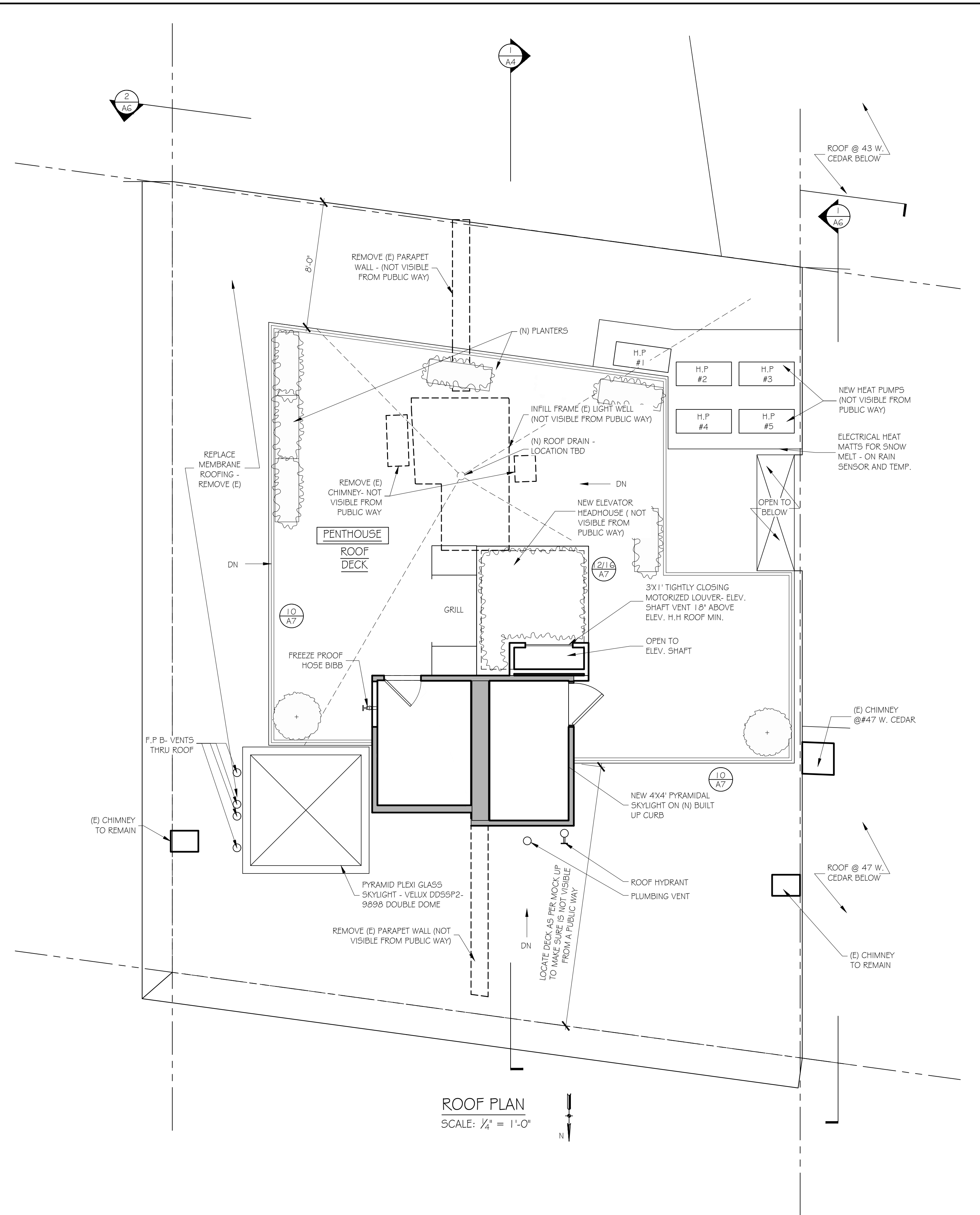
JOB NO: 2513	SCALE: 1/4" = 1'-0"
DATE: 03.06.26	REVISIONS:
	REVISOR:
	DATE:

90-94 REVERE STREET  
BOSTON, MA

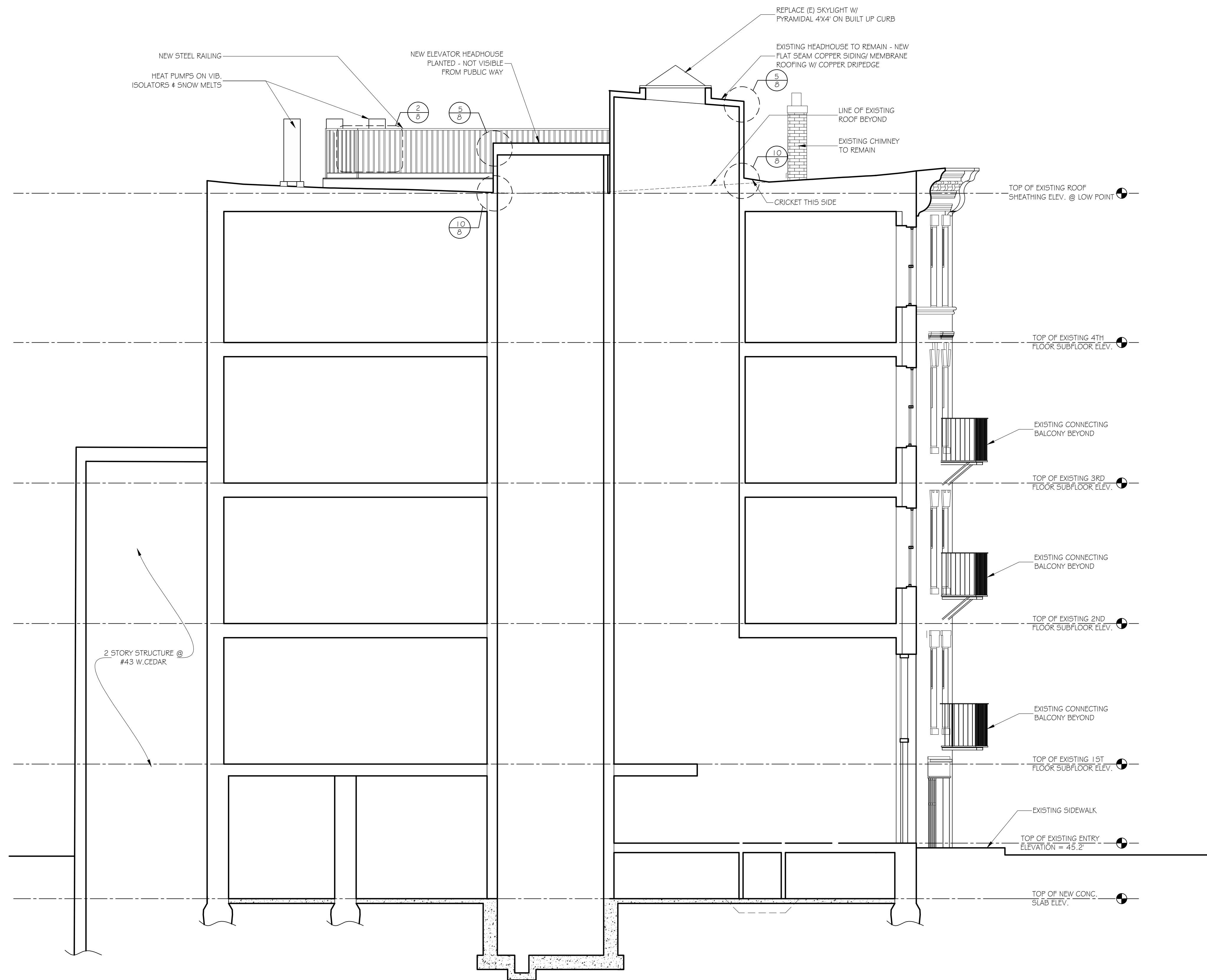
SECOND AND THIRD  
FLOOR PLANS



FOURTH FLOOR PLAN  
SCALE: 1/4" = 1'-0"



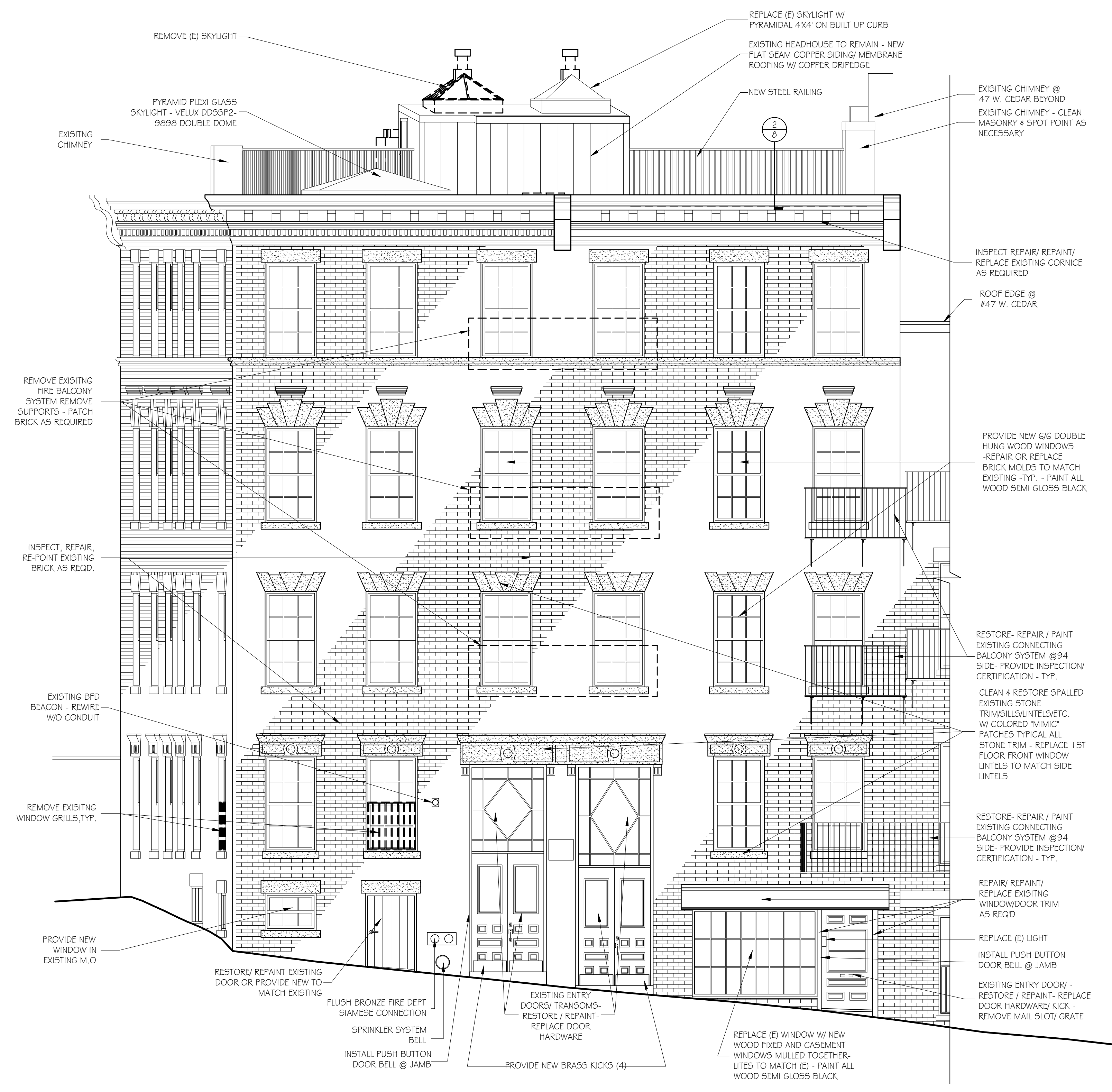
ROOF PLAN  
SCALE: 1/4" = 1'-0"



**1** BUILDING SECTION  
 SCALE: 1/4"=1'-0"



EXISTING NORTH ELEVATION  
SCALE: 1/4"=1'-0"



PROPOSED NORTH ELEVATION  
SCALE: 1/4"=1'-0"

REMOVE (E) SKYLIGHT

REPLACE (E) SKYLIGHT W/ PYRAMIDAL 4'X4' ON BUILT UP CURB

EXISTING HEADHOUSE TO REMAIN - NEW FLAT SEAM COPPER SIDING/ MEMBRANE ROOFING W/ COPPER DRIPEDGE

NEW STEEL RAILING

EXISTING CHIMNEY @ 47 W. CEDAR BEYOND

EXISTING CHIMNEY - CLEAN MASONRY & SPOT POINT AS NECESSARY

INSPECT REPAIR/ REPAINT/ REPLACE EXISTING CORNICE AS REQUIRED

ROOF EDGE @ #47 W. CEDAR

REMOVE EXISTING FIRE BALCONY SYSTEM REMOVE SUPPORTS - PATCH BRICK AS REQUIRED

PROVIDE NEW G/G DOUBLE HUNG WOOD WINDOWS - REPAIR OR REPLACE BRICK MOLDS TO MATCH EXISTING - TYP. - PAINT ALL WOOD SEMI GLOSS BLACK

RESTORE - REPAIR / PAINT EXISTING CONNECTING BALCONY SYSTEM @94 SIDE - PROVIDE INSPECTION/ CERTIFICATION - TYP.

CLEAN & RESTORE SPALLED EXISTING STONE TRIMS/SILLS/INTELS/ETC. W/ COLORED "MIMIC" PATCHES TYPICAL ALL STONE TRIM - REPLACE 1ST FLOOR FRONT WINDOW UNTELS TO MATCH SIDE UNTELS

RESTORE - REPAIR / PAINT EXISTING CONNECTING BALCONY SYSTEM @94 SIDE - PROVIDE INSPECTION/ CERTIFICATION - TYP.

REPAIR/ REPAINT/ REPLACE EXISTING WINDOW/DOOR TRIM AS REQD

REPLACE (E) LIGHT

INSTALL PUSH BUTTON DOOR BELL @ JAMB

EXISTING ENTRY DOOR/ - RESTORE / REPAIR - REPLACE DOOR HARDWARE/ KICK - REMOVE MAIL SLOT/ GRATE

RESTORE/ REPAINT EXISTING DOOR OR PROVIDE NEW TO MATCH EXISTING

FLUSH BRONZE FIRE DEPT SIAMESE CONNECTION

SPRINKLER SYSTEM BELL

INSTALL PUSH BUTTON DOOR BELL @ JAMB

EXISTING ENTRY DOORS/ TRANSOMS - RESTORE / REPAIR - REPLACE DOOR HARDWARE

PROVIDE NEW BRASS KICKS (4)

REPLACE (E) WINDOW W/ NEW WOOD FIXED AND CASEMENT WINDOWS MULLED TOGETHER - LITES TO MATCH (E) - PAINT ALL WOOD SEMI GLOSS BLACK

REMOVE EXISTING WINDOW GRILLS, TYP.

EXISTING BFD BEACON - REWIRE W/O CONDUIT

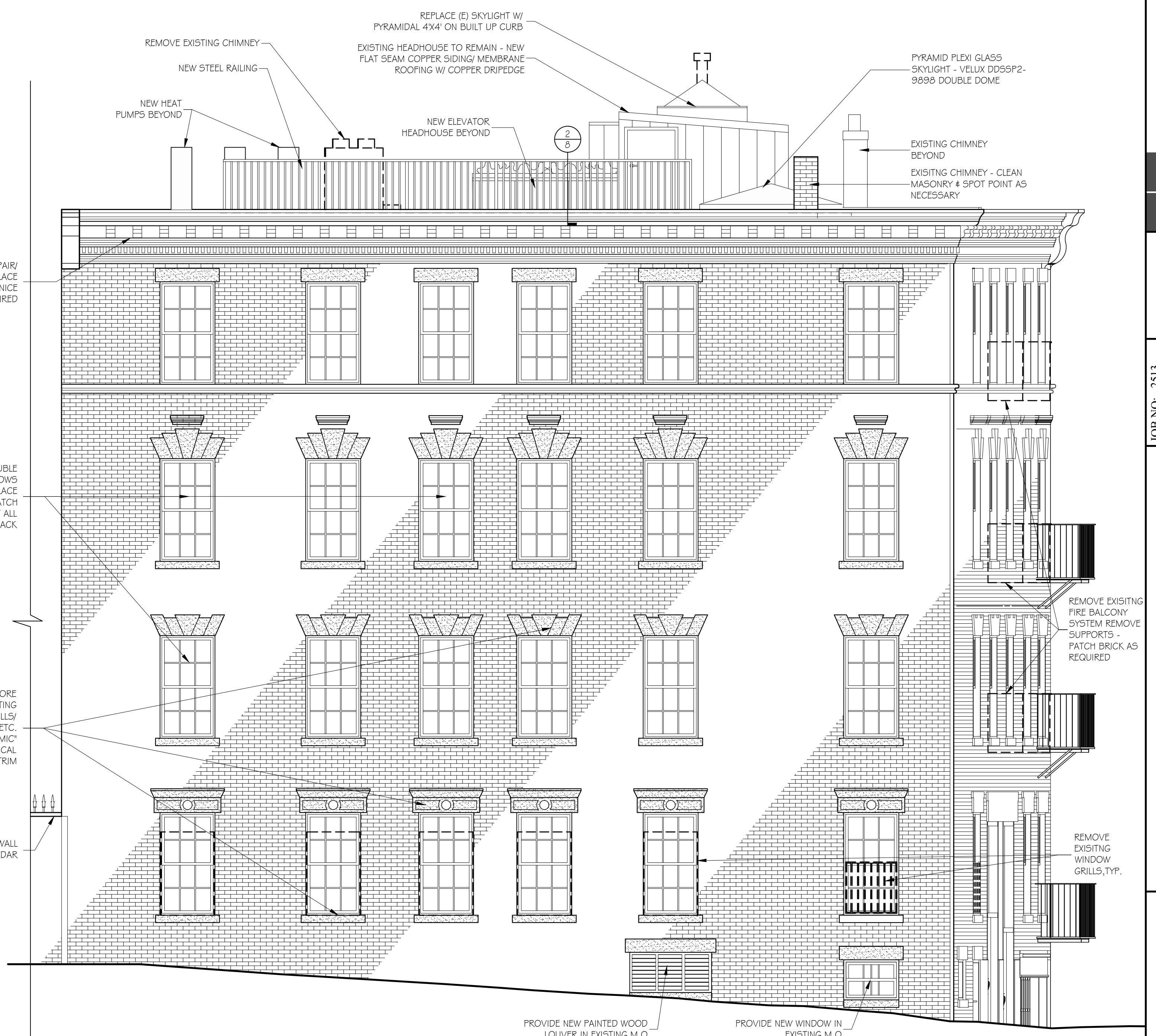
REMOVE EXISTING FIRE BALCONY SYSTEM REMOVE SUPPORTS - PATCH BRICK AS REQUIRED

INSPECT, REPAIR, RE-POINT EXISTING BRICK AS REQD.

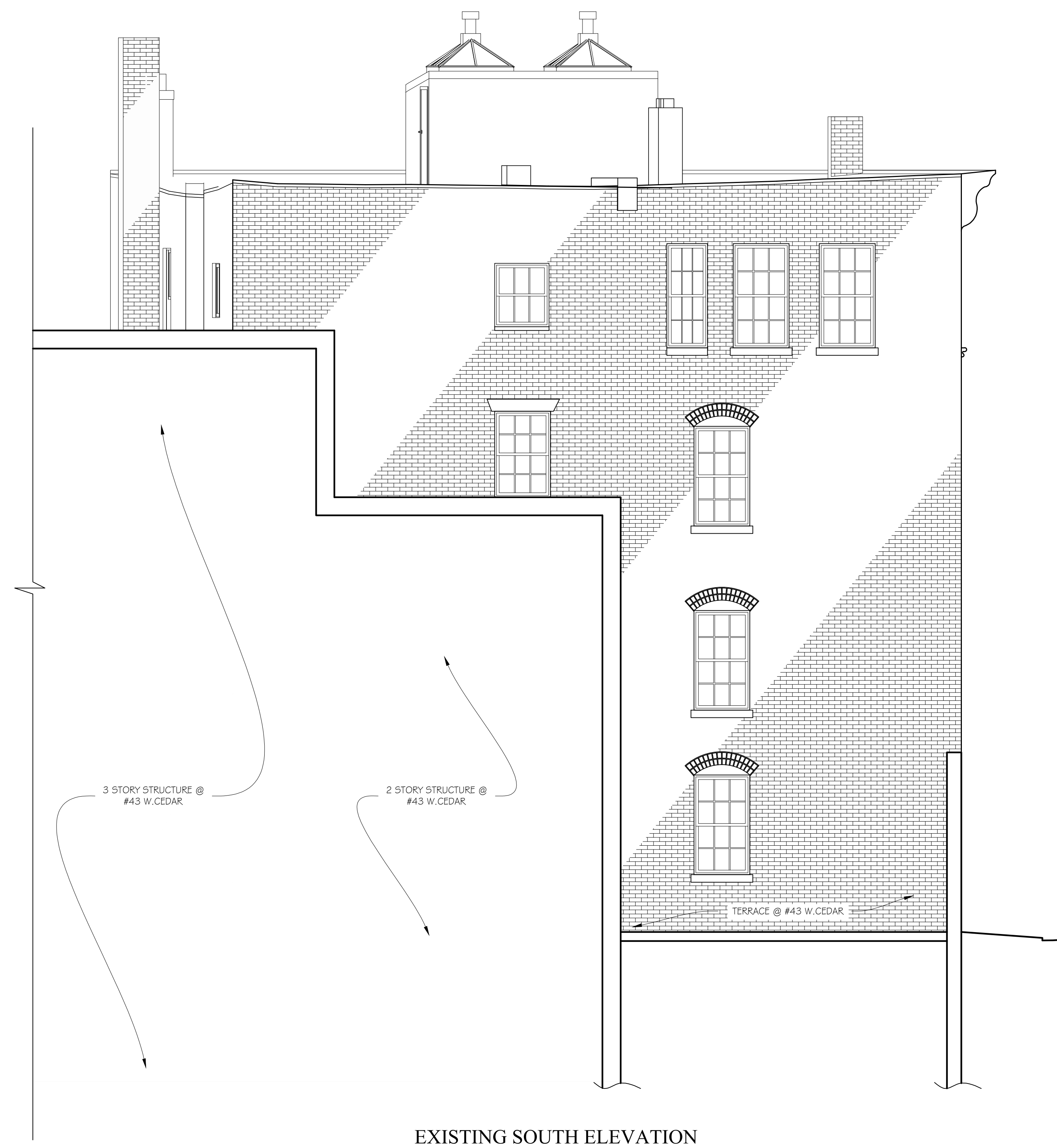
PROVIDE NEW WINDOW IN EXISTING M.O



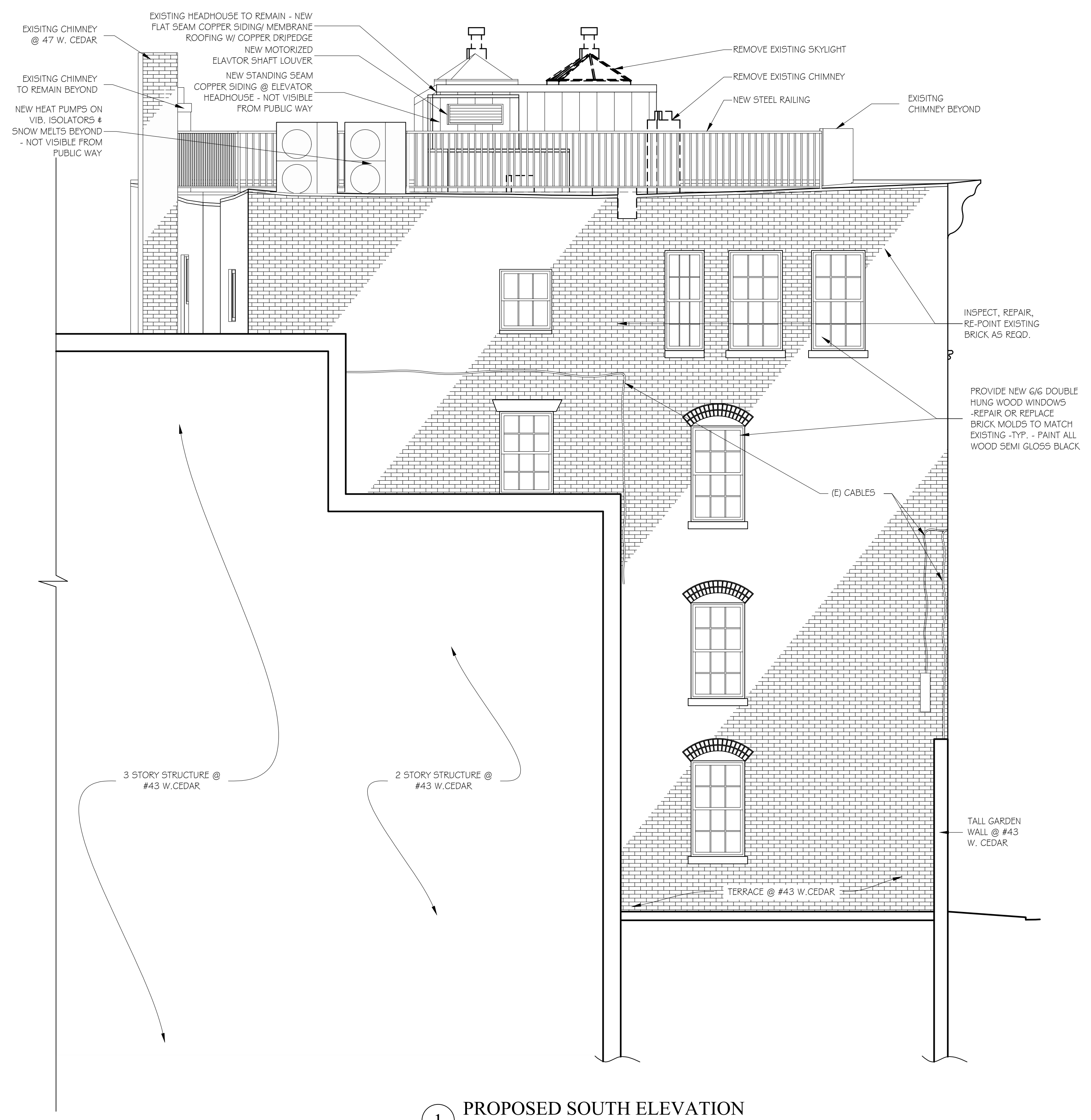
EXISTING EAST ELEVATION  
 SCALE: 1/4"=1'-0"



PROPOSED EAST ELEVATION  
 SCALE: 1/4"=1'-0"



EXISTING SOUTH ELEVATION  
 SCALE: 1/4"=1'-0"

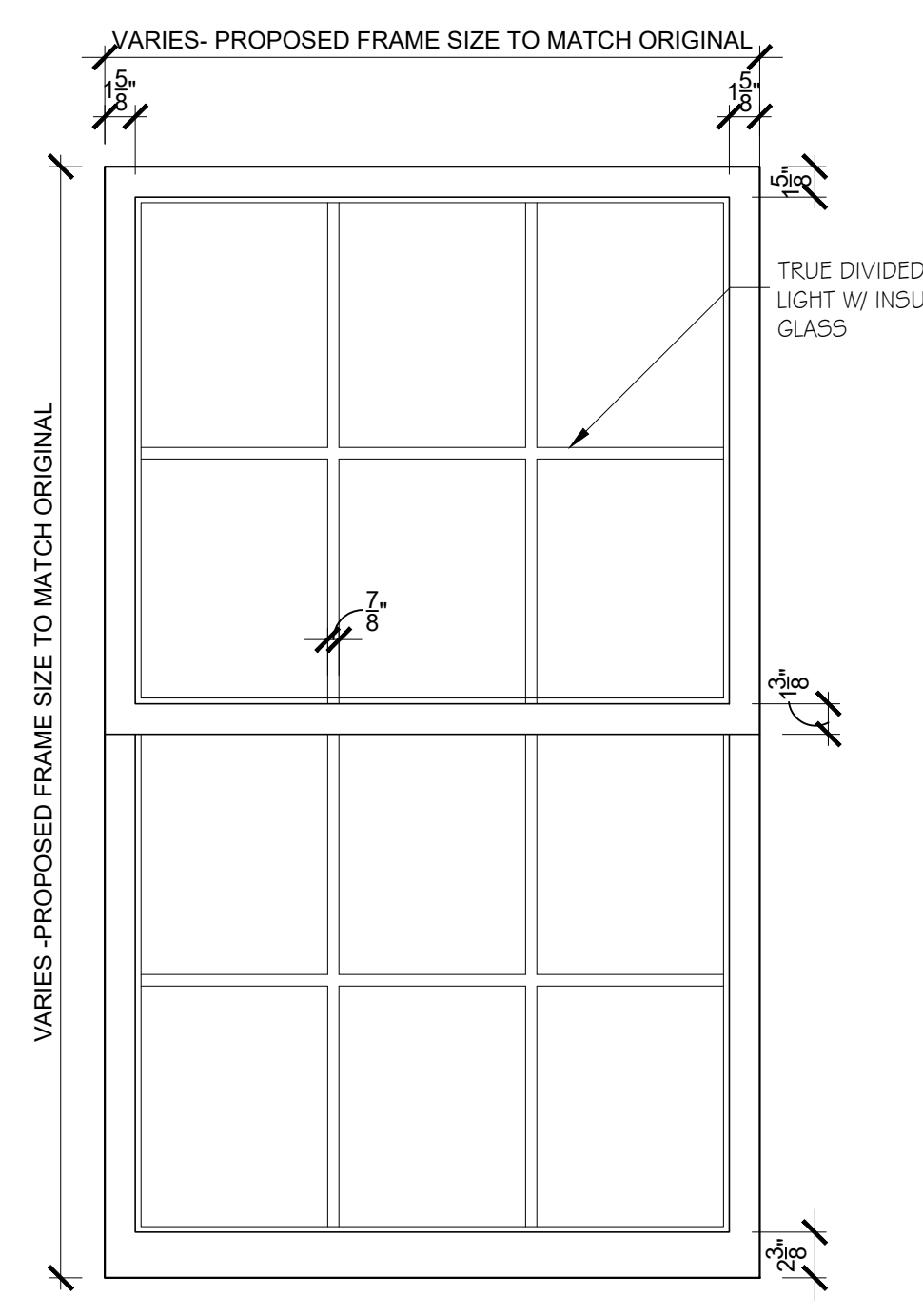


1 PROPOSED SOUTH ELEVATION  
 SCALE: 1/4"=1'-0"

EXTERIOR DETAILS

<p>EXISTING OR NEW MASONRY EXISTING BRICK LINTEL OR EXISTING STONE HEADER (@ FRONT ELEVATION) SEALANT NEW BRICK MOULD- PTD</p> <p>GWB- SEE WALL TYPE SCHEDULE MINERAL WOOL INSUL. STUDS P.T. BLOCKING AS REQUIRED FILL VOIDS WITH CLOSED CELL SPRAY FOAM INSULATION - TYP. 3/4" MDF HEAD/ JAMB @ NEW WINDOW TRIM NEW STOPS SHIM NEW WOOD SASH &amp; FRAME - PTD</p>	<p>LAWLER MCR STEEL RAIL ON 1" CHANNEL 1" SQ. T.S. POST-PTD. @ 6'-0" O.C. MAX 1/2" SQ. BALLUSTER @ 4" O.C.- PTD. 1/2" x 1" SUB RAIL- PTD.</p> <p>NOTE: ALL METAL RAILINGS TO RECEIVE COLOR GALVANIZING IN BLACK</p> <p>TOP OF DECK</p> <p>3/8"x4"x6" STL PLATE- W/ COUNTER SUNK SCREWS TO BLOCKING @ DECK OR TO BALCONY CHANNEL</p>	<p>3</p> <p>NOT USED</p>	<p>4</p> <p>NOT USED</p>	<p>(E) MEMBRANE ROOFING (E) OR (N) 3/4" CDX PLYWD SHEATHING (E) MEMBRANE FLASHING R-14 RIGID INSULATION COPPER DRIP EDGE COPPER CLEAT @ 24" O.C. 2x4 P.T. BLOCKING (E) OR (N) 5/8" CDX PLY SHEATHING AIR BARRIER MEMBRANE FLAT SEAM COPPER SIDING (E) WOOD STUDS- (N) 2x4 @ ELEV.) R-5 RIGID INSULATION BOARD.</p> <p>R-30 CLOSED CELL SPRAY FOAM INSULATION 1/2" GWB ON FURRING (NO GWB @ ELEV) 1/2" GWB R-20 CLOSED CELL SPRAY FOAM INSUL.</p>
<p>1 TYP. WINDOW HEAD DTL. IN MASONRY OPENING (JAMB SIM.) 1 1/2" = 1'-0"</p>	<p>2 RAILING DETAIL @ ROOF DECK 1 1/2" = 1'-0"</p>	<p>3 NOT USED</p>	<p>4 NOT USED</p>	<p>5 HEAD HOUSE WALL @ ROOF (ELEV. SIM) 1 1/2" = 1'-0"</p>
<p>NEW BRICK MOULD BEYOND- PTD NEW SELF-ADHERED MEMBRANE FLASHING - TURN UP 8" (MIN.) AT JAMBS NEW 1/2" SCREEN NEW WOOD SILL SEALANT EXISTING STONE SILL</p> <p>TYP. CASING BEYOND NEW WOOD SASH &amp; FRAME - PTD FILL VOIDS WITH CLOSED CELL SPRAY FOAM INSULATION, TYP. 3/4" MDF STOOL CAP W/ BULLNOSE EDGE TYP. APRON P.T. BLOCKING AS REQUIRED GWB- SEE WALL TYPE SCHEDULE NEW STUDS WITH 3 1/2" MINERAL WOOL INSULATION EXISTING OR NEW MASONRY</p>	<p>7</p> <p>NOT USED</p>	<p>8</p> <p>NOT USED</p>	<p>9</p> <p>NOT USED</p>	<p>(E) STUD FRAME (N) 2x4 @ ELEV.) FLAT SEAM COPPER SIDING AIR BARRIER MEMBRANE 1/2" FR5 SHEATH. R-5 RIGID INSULATION BOARD COPPER FLASHING TERM. BAR MEMBRANE ROOFING 1x4 IPE DECKING WHERE SHOWN MEMBRANE ROOFING 1/2" PROT. BOARD @ DECK RIGID INSUL.</p> <p>R-20 CLOSED CELL SPRAY FOAM INSUL. 1/2" TYPE-X GWB - (2- 5/8" TYPE X @ ELEV.) 2x P.T. SLEEPERS &amp; ROOFING PROTECTION PADS WHERE DECKING IS SHOWN- RIP SLEEPERS TO LEVEL (E) ROOF SHEATH. (E) BEAM- SEE STRUCT. DRAWINGS</p>
<p>6 TYP. WINDOW SILL DETAIL IN MASONRY OPENING 1 1/2" = 1'-0"</p>	<p>7 NOT USED</p>	<p>8 NOT USED</p>	<p>9 NOT USED</p>	<p>10 HEAD HOUSE WALL @ DECK 1 1/2" = 1'-0"</p>

WINDOW TYPE ELEVATIONS - SCALE: 1" = 1'-0"



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 Phone 617.956.9992  
 Fax 917.956.9993

**GD** GRASSI DESIGN GROUP  
**BG** BEAUCHEMIN GRASSI INTERIORS

JOB NO: 2513  
 SCALE: AS NOTED  
 REVISED

90-94 REVERE STREET  
 BOSTON, MA

EXTERIOR DETAILS AND WINDOW TYPE ELEVATIONS

8

ESTATE PORTFOLIO

# NASHVILLE TRIM

MORTISE KNOB ENTRANCE TRIM

MODEL NUMBER: 6547.001.ENTR

## FINISHES OPTIONS



ADD TO WISHLIST



WHERE TO BUY



SPECIFICATIONS INSTALLATION AND SUPPORT PRODUCT RECOMMENDATIONS

## SPECIFICATIONS

all measurements in inches

<b>LOCK TYPE</b>	Mortise
<b>STYLE</b>	Traditional
<b>LOCK FUNCTION</b>	Entry

TYPE	ITEM #	DESCRIPTION	QTY/UOM
Set	6547.xxx.ENTR	Entrance Trim	Set
Set	6547.xxx.DBLC	Double Cylinder	Set
Set	6547.xxx.FD	Full Dummy	Set
Set	6547.xxx.ENFD <sup>†</sup>	1 Active Entrance Set + 1 Full Dummy Set	2 Sets
Ext.	6547.xxx.DM	Dummy Exterior only	Each
Interior	6793.xxx.KC	Interior Escutcheon – Cut for Cylinder (KC), Double Cylinder	Each
Interior	6793.xxx.KE**	Cut for Emergency Release (KE)	Each
Interior	6793.xxx.KN	Cut for Knob (KN), Passage/Dummy	Each
Interior	6793.xxx.KT	Interior Escutcheon w/ Turn Knob (KT)	Each
Interior	6793.xxx.KP	Escutcheons Cut for Privacy (KP)	Pair

† ENFD only available in 050 & 112, to ensure a finish match on all components.

## INSTALLATION AND SUPPORT

- [INSTRUCTION SHEET](#)
- [WARRANTY](#)
- [PRINT SPEC SHEET](#)
- [DRILLING TEMPLATE](#)
- [DOWNLOAD PRODUCT IMAGES](#)



## PRODUCT RECOMMENDATIONS



**Siedle Steel - Video Door station - Intercom Unit**  
Recess mounted with 2 push buttons (One shown)

Home / SKU: P110440447



## Deltana

Deltana BBS333CR003 Bell Button, Rectangular Contemporary in PVD Polished Brass

**\$52** | As low as \$10/mo. or 0% APR with Affirm  
or Design today. Pay over time.

Color: Polished Brass



Free Delivery

Get it Sat, Mar 28 - Mon, Mar 30 to 02303



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**Overview**   Dimensions   Details   Returns

### About Deltana

Deltana is an architectural hardware manufacturer with a proven record for exceptional service and quality.

[EXPLORE THIS BRAND](#)



### You May Also Like



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keyword

## Baldwin Kick Plate 8 in. x 34 in. Non-Lacquered Brass - 2000.031.0834

[Home](#) / [Kickplate Knockers Bell Button Numbers Letter Box](#) / [Kickplate](#)

Price ranges from \$169.00 to \$211.25 depending on options chosen below:



Finish:

044 Lifetime Satin Brass ▾



Size:

0834 8 In x 34 In ▾



Home



## Dixon 2 1/2 in. NST x 4 in. NPT Double Clapper Concealed Type Siamese Assembly - Polished - Auto Sprinkler

SKU: DX2WCA4025FP  
 Manufacturer: [Dixon](#)  
 Outlet: 4 in. Female NPT  
 Inlet: 2 1/2 in. Female NST (NH)  
 Label: Auto Sprinkler  
 Finish: Polished  
 Weight: 32.00 LBS

**\$2,055.28**

From \$204/month [Credit Key](#) for Business Customers

**WARNING:** This product may contain a chemical known to the State of California to cause cancer & reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Qty:

1

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**DESCRIPTION**

FEATURES

PACKAGE CONTENTS

Double Clapper Concealed Type Siamese Assembly from Dixon is fully reversible with a perpendicular trunnion allowing one body to be installed for top and bottom connections. Units have a maximum working pressure of 250 PSI and are UL/ULC Listed and FM approved.

**Note:** Branded "AUTO SPKR" with a polished finish.

### Related Products

 <b>Dixon</b> Dixon 2 1/2 in. NST x 6 in. NPT Double Clapper Concealed Type Siamese Assembly - Polished - Auto Sprinkler <b>\$2,480.69</b> <a href="#">Quick view</a> <a href="#">Add to Cart</a>	 <b>Dixon</b> Dixon 3 in. NST x 4 in. NPT Double Clapper Concealed Type Siamese Assembly - Polished - Auto Sprinkler <b>\$1,905.42</b> <a href="#">Quick view</a> <a href="#">Add to Cart</a>	 <b>Dixon</b> Dixon 2 1/2 in. NST x 4 in. NPT Double Clapper Concealed Type Siamese Assembly - Polished Chrome Plated - Auto Sprinkler <b>\$2,007.15</b> <a href="#">Quick view</a> <a href="#">Add to Cart</a>	 <b>Dixon</b> Dixon 2 1/2 in. NST x 6 in. NPT Double Clapper Concealed Type Siamese Assembly - Polished Chrome Plated - Auto Sprinkler <b>\$2,362.56</b> <a href="#">Quick view</a> <a href="#">Add to Cart</a>	 <b>Dixon</b> Dixon 2 1/2 in. NST x 4 in. NPT Double Clapper Concealed Type Siamese Assembly - Polished - Stand Pipe <b>\$2,055.28</b> <a href="#">Quick view</a> <a href="#">Add to Cart</a>
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### You May Also Like





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HOME — ACCESSORIES — LETTER SLOTS — BALDWIN 0014 LETTER BOX PLATE (PACKAGE SIZE)



FREE KEYING SERVICE WITH PURCHASE

BALDWIN HARDWARE SEE ALL LETTER SLOTS

Baldwin 0014 Letter Box Plate (package size)

\$192.80 List Price: \$249.99

SKU: 0014

FINISH:



Quantity selector: - 1 +

ADD TO CART

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Share: Facebook, Instagram, Twitter, LinkedIn, Pinterest

DETAILS

- Letter Box plates are well-crafted with an exterior hinged flap that keeps wind and bad weather out while allowing mail to be received
- In addition to the features of the 0012, the hinging back plate provides additional privacy and decorative appearance. Not suitable for vertical installation
- Overall size: 13" x 3.025"; Inside opening (door prep): 11.562" x 2.812"
- Designed for use on exposed doors with larger opening to accommodate mail and small packages.
- Please call 1-800-358-2469 to speak with a Baldwin specialist or to order by phone

RESOURCES

DOWNLOADS

Download links for: Instruction Sheet.pdf, Drilling Template.pdf, Warranty.pdf, File-Name.pdf

ACCESSORIES

FREE SHIPPING OVER \$99



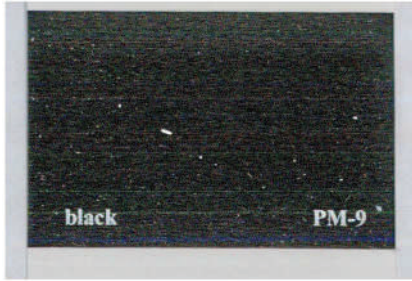
BALDWIN HARDWARE Baldwin 0052 Letterbox Sleeve for 0012 & 0014 List Price: \$66.00 \$82.00

HAVE A QUESTION ABOUT THIS PRODUCT?

Ask us and a Baldwin expert will get back to you asap.

ASK A QUESTION

BENJAMIN MOORE CLASSIC PAINT COLORS



Railing System

# CITY MULTI® S-Series Building Comfort Solutions

Roof Top Mech. Equipment



## S-Series Solutions for the home or small office

The CITY MULTI S-Series offers all the features and benefits of our large commercial CITY MULTI Y-Series. The S-Series Solution features a single-phase outdoor unit with Variable Refrigerant Flow Zoning (VRFZ) technology and CITY MULTI Controls Network (CMCN) to cool or heat all zones with a variety of indoor unit styles. The compact outdoor unit utilizes R410A refrigerant and an INVERTER-driven compressor to use energy effectively. A maximum of eight CITY MULTI indoor units can be connected with up to 130% connected capacity, depending on diversity. CITY MULTI Controls Network intelligently manages the CITY MULTI building comfort solution through zone controllers and system controllers and optionally through a networked PC to manage individual comfort and to provide the ultimate building comfort solution.



## Easy, flexible installation

The S-Series outdoor unit is easy to install and can be accessed for service through both a front and side panel. The unit's compact dimensions and easy accessibility allow multiple units to be stacked side by side in tight areas, saving valuable space and resources.

## Available indoor units

Capacity Code	Wall-mounted PWFY-P-W+MU-E	Ceiling-recessed Cassette RWFY-P-W+MU-E	Ceiling-recessed Cassette PWFY-P-NBMU-E	Ceiling-suspended PWFY-P-NGMU-E	Ceiling-concealed (ducted) PWFY-P-NMU-E	Ceiling-concealed (ducted low-profile) PWFY-P-NMLU-E	Ceiling-concealed (ducted alternate high-static) PWFY-P-NMHU-E	Floor-standing (exposed/concealed) PWFY-P-NEMUNRMU-E
Nominal Btu/h	 6,000-30,000	 8,000-36,000	 6,000-15,000	 15,000-36,000	 6,000-48,000	 6,000-12,000	 15,000-54,000	 PWFY-NEMU down 6,000-24,000



Roof Top Mechanical Equipment

# Hyper-heating

Indoor Unit	PLA-A24EA7	PLA-A30EA7	PLA-A36EA7	PLA-A42EA7	
Outdoor Unit	PUZ-HA24NHKA1	PUZ-HA30NHKA	PUZ-HA36NHKA	PUZ-HA42NHKA1	
Cooling	Capacity	Rated <sup>1</sup> 24,000	30,000	36,000	42,000
	Capacity Range	Min-Max 10,000-24,000	14,600-30,000	14,800-36,000	18,800-42,000
	Power Input	Rated <sup>1</sup> W 1,710	2,120	2,750	3,920
	Moisture Removal	Pintsh 3.0	5.4	5.5	4.5
	Sensible Heat Factor	0.860	0.800	0.830	0.880
	Capacity at 47°F	Rated <sup>2</sup> BTU/H 26,000	32,000	38,000	48,000
	Capacity Range	Min-Max BTU/H 10,000-28,000	14,200-34,000	16,700-40,000	17,000-54,000
	Power Input at 47°F	Rated <sup>2</sup> W 1,700	2,260	2,650	4,210
	Capacity at 17°F	Rated <sup>3</sup> BTU/H 17,300	20,600	24,200	40,500
	Capacity at 5°F	Max <sup>4</sup> BTU/H 26,000	32,000	38,000	48,000
Capacity at -5°F	Max BTU/H —	—	—	—	
SEER	21.5	20.2	20.0	16.3	
EER	14.0	14.1	13.0	10.7	
HSPF	11.3	9.8	10.4	9.8	
COP	4.5	4.1	4.2	3.3	
ENERGY STAR® Certified	Yes	Yes	Yes	No	
Indoor Unit	Air Flow Rate - Cooling (Quiet-Lo-Med-Hi-SH)	Dry CFM 530-640-710-810	570-670-780-880	670-850-1020-1200	740-920-1060-1200
	Air Flow Rate - Cooling (Quiet-Lo-Med-Hi-SH)	Wet CFM 490-600-670-770	530-630-740-840	630-810-980-1160	700-880-1020-1160
	Air Flow Rate - Heating (Quiet-Lo-Med-Hi-SH)	Dry CFM 530-640-710-810	570-670-780-880	670-850-1020-1200	740-920-1060-1200
	Sound Pressure Level (Quiet-Lo-Med-Hi-SH)	Cooling dB(A) 28-30-33-36	28-32-35-38	32-37-41-44	34-38-42-45
	Sound Pressure Level (Quiet-Lo-Med-Hi-SH)	Heating dB(A) 28-30-33-36	28-32-35-38	32-37-41-44	34-38-42-45
	External Static Pressure	In. W.G. —	—	—	—
	Condensate Lift Mechanism	Max Distance In. [mm] 33-7/16 [849]	33-7/16 [849]	33-7/16 [849]	33-7/16 [849]
	Dimensions	H In. [mm] 11-3/4 // 1-9/16 [298 // 40]	11-3/4 // 1-9/16 [298 // 40]	11-3/4 // 1-9/16 [298 // 40]	11-3/4 // 1-9/16 [298 // 40]
		W In. [mm] 33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]
		D In. [mm] 33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]	33-1/16 // 37-13/32 [840 // 950]
Outdoor Unit	Weight	lbs [kg] 56 // 11 [25 // 5]	56 // 11 [25 // 5]	56 // 11 [25 // 5]	56 // 11 [25 // 5]
	MCA	A 17.0	24.0	26.0	36.0
	MOC	A 27	40	42	44
	Dimensions	H In. [mm] 37-1/8 [943]	52-11/16 [1338]	52-11/16 [1338]	52-11/16 [1338]
		W In. [mm] 37-13/32 [950]	41-5/16 [1050]	41-5/16 [1050]	41-5/16 [1050]
		D In. [mm] 14-3/16 [360]	14-3/16 [360]	14-3/16 [360]	14-3/16 [360]
	Weight	lbs [kg] 190 [86]	261 [118]	261 [118]	283 [128]
	Air Flow Rate (Cooling/Heating)	CFM 1940/1940	3880/3880	3880/3880	3319/3319
	Sound Pressure Level	Cooling dB(A) 52	52	52	49
		Heating dB(A) 53	53	53	51

## SECTION 04500

### MASONRY RESTORATION AND CLEANING

#### PART 1 GENERAL

##### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of contract, including general and supplementary conditions and Division-1 specifications sections, apply to work of this section.

##### 1.02 DESCRIPTION OF WORK

- A. Extent of masonry restoration work is indicated on drawings and in schedules.
- B. Masonry Restoration Work Includes the Following:
  - 1. Chemical cleaning of exposed exterior masonry surfaces.
  - 2. Repairing and rebuilding damaged stonework.
  - 3. Stonework restoration.
  - 4. Re-pointing of masonry joints as required.

NOTE: The chemical cleaning of exterior surfaces should be accomplished before new windows are installed.

- C. Masonry construction is specified in other Division 4 sections.
- D. Joint sealers are specified in a Division 7 section.

##### 1.03 QUALITY ASSURANCE

A. Restoration Specialist: Work must be performed by a firm with not less than 5 years successful experience in masonry restoration projects employing skilled personnel for execution of the work.

- B. Job Mock-Ups: Prior to start of general masonry restoration, conduct the following procedures. Obtain Architect's acceptance of visual qualities before proceeding with the work.
  - 1. Cleaning: Prepare a 4 ft. by 6 ft. sample area on the building where directed by architect, showing materials and methods to be used for cleaning exterior masonry surfaces.

2. Re-pointing: Prepare a 4 ft. by 6 ft. sample area on the building where directed by architect, showing routing and repointing including mortar, type of joint, and workmanship for masonry in project.

3. Stonework Restoration: Prepare a 2' x 2' sample area on the building, where directed by Architect for stonework restoration. Use anchorage, bonding, mortar and workmanship expected in completed work. The restoration patching mix shall match the existing brownstone in texture and color. Acceptable panel shall be used as a standard for judging completed work.

C. Source of Materials: Obtain materials for masonry restoration from a single source for each type material required (face brick, cement, sand, etc.) to ensure match quality, color, pattern, and texture.

#### 1.04 SUBMITTALS:

A. Product Data: Submit manufacturer's specifications and other data for each manufactured product, including certification that each product complies with specified requirements. Include instructions for handling, storage, installation and protection of each product.

B. Samples: Sample areas shall be used to exhibit the cleaning performance of the restoration cleaner on brick work. Test areas shall be selected by Architect and shall be approximately 20 sq. ft. Multiple tests of varying concentrations shall determine composition of cleaning solution required. Provide written certification by manufacturer that restoration cleaner is compatible with brownstone.

#### 1.05 DELIVERY, STORAGE AND HANDLING

A. Protect masonry materials during storage and construction from wetting by rain, snow or ground water, and from staining or intermixture with earth or other types of materials.

B. Protect grout and mortar materials from deterioration by moisture and temperature. Store in a dry location or in waterproof containers tightly closed and away from open flames. Protect liquid components from freezing. Comply with manufacturer's recommendations for minimum and maximum temperature requirements for storage.

#### 1.06 JOB CONDITIONS

A. Materials Protection: Do not use metal reinforcing or ties having loose rust or other coatings, including ice, which will reduce or destroy bond.

B. Protection of Work: During restoration cover wall with heavy waterproof sheeting at end of each day's work, if precipitation is expected.

- C. Staining: Prevent grout or mortar from staining face of masonry to be left exposed. Remove immediately grout or mortar in contact with masonry.
- D. Protect sills, ledges and projections from droppings of mortar.
- E. Cold Weather Protection:
  - 1. Remove ice or snow formed on masonry bed by carefully applying heat until top surface is dry to the touch.
  - 2. Remove masonry determined to be frozen or damaged by freezing conditions.
- F. Perform the following construction procedures while the work is in progress:
  - 1. When air temperature is from 40 deg. F (4 C) to 32 Deg. F (0 C), heat sand or mixing water to produce mortar temperatures between 40 deg. F (4 C) and 120 deg. F (49 C).
  - 2. When air temperature is below freezing, do not undertake tuckpointing or stone restoration.
- G. Perform the following protections for completed masonry and masonry not being worked on:
  - 1. Protect masonry from rain or snow for at least 24 hours by covering with water-resistive membrane.

## PART 2 PRODUCTS

### 2.01 BRICK:

- A. Rebuild and/or repair existing masonry to be exposed, using bricks salvaged from selective demolition or new bricks to match existing.

### 2.02 MORTAR MATERIALS

- A. Mortar for Face Brick and Accessories: Provide mortar for face brick and accessories to match original mortar in texture, color, strength, and hardness (density and porosity).
  - 1. Determining existing mortar mix constituents and ratios by analysis. Review laboratory evaluations with Architect before proceeding with the work.
  - 2. Match color of existing mortar by use of aggregates matching original aggregate color where possible. Use inorganic coloring pigments if satisfactory color match cannot be attained with natural materials.
  - 3. Mortar mix to be in accordance with New York City Landmarks Preservation Commission Row House Manual – page 44 – 1 part Portland cement, 2 parts lime, 8 parts sand – mix, then add pigments and water- (Type O).

### 2.03 MASONRY CLEANING ( BRICKWORK)

- A. A sample patch of cleaning must be reviewed and approved by architect before work is begun.
- B. Cleaning Agent: Blended organic and inorganic acids combined with special wetting systems and inhibitors; as manufactured by ProSoCo, Inc., Type 1 Restoration cleaner – or approved equal for the removal of atmospheric carbon and dirt, paint oxidation, and embedded clay and mud stains from brick and other masonry surfaces.

### 2.04 RESTORATION MATERIALS

- A. Epoxy Mortar: Conproco “mimic” trowel applied color matched, or approved equal.
- B. Primer: Conproco “mimic” bonding agent or approved equal.
- C. Stone Restoration Mix: Mix as per mortar manufacture’s recommendations.

## PART 3 EXECUTION

### 3.01 CLEANING EXISTING MASONRY:

A. Preparation of Surfaces: Cleaners specified herein are highly concentrated products, and to the extent established by job site tests, shall be diluted with clean water before application.

1. Cleaners specified herein are harmful to glass, aluminum, painted, surfaces, foliage, and human skin and eyes.
2. Protect all surrounding areas as recommended by the literature of the manufacturer and as requested by the architect.
3. Windows shall be protected from contact with materials by masking with polyethylene, or by using Sure Klean Acid Stop, as manufactured by ProSoCo, Inc. South Plainfield, NJ or approved equal.
4. All polished stone, metal or non-masonry surfaces shall be protected from contact with the material by masking with polyethylene or approved protective material.
5. Adjacent shrubs, lawn, plants and sidewalks should be covered with polyethylene and protected from direct contact with the material.
6. Necessary routing of joints and replacement of damaged masonry units shall have been completed, with exception of final pointing, prior to beginning cleaning operation.
7. Adequate water supply shall be made available to assure thorough pre-soaking and thorough rinsing of the wall before undertaking general cleaning. All surfaces shall be thoroughly pre-soaked with clean water to prevent the absorption of the cleaning solution within the pores of the masonry.

- B. Cleaning Process: Brick, unpolished granite, sandstone, terra cotta and/or exposed aggregate shall be spray or brush coated with Type I restoration cleaner, and left on the surface two or three minutes. A second application shall follow if deemed necessary by preliminary tests. Coated area shall then be rinsed from bottom up with clear water using high pressure rinsing equipment. Equipment shall be adjusted so that rinse water, either warm or cold, is applied at a pressure not to exceed 500 P.S.I. Attempts shall be made during the testing stage to determine if effective cleaning can be achieved with rinse water applied at pressures not to exceed 500 P.S.I. Flow of water shall be 10 gallons per minute. Gun used to apply water shall be equipped with not less than a 15" spray tip. All tips shall be fan type.

### 3.02 REPAIRING EXISTING MASONRY

- A. Routing of Joints: Remove defective mortar joints to solid material or a depth of 1.0" whichever is greater, using hand tools. Take care to avoid damaging existing masonry or enlarging width of joints.
1. A sample of pointing must be reviewed and approved by architect before work is begun.
  2. Mechanical tools will be permitted only on specific written approval of architect and demonstrated ability by operators to use without damage to masonry.
  3. Remove and repair damage to existing masonry by cutting, spalling and chipping as caused by routing operations.
  4. Thoroughly remove loose material from joints using a hose stream under normal pressure or by low pressure compressed air.
- B. Mortar Mixing: Add only enough water to dry mix ingredients to produce a damp, workable mix. Keep mortar in dampened condition for 1 to 2 hours, and then add sufficient to bring it to proper consistency.
- C. Replacing Brick: Lay brick and accessories to match existing bond, unless otherwise indicated.
1. Match existing course height (one brick and one joint) for both face brick and back-up brick.
  2. Provide bonding between face brick and back-up brick as indicated.
  3. Provide joints to match existing, unless otherwise indicated. Delay final tooling of joints until mortar is thumb print hard. Take care to not spread mortar over the edges of face brick onto exposed surfaces.
  4. Wet brick before laying. Do not use brick which are saturated with water, or which have been unduly exposed to moisture or rain at site, or which have been in contact with ground.
  5. Lay brick with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not slush head joints. Do not furrow bed joint; strike mortar flat with trowel.

6. Lay up brickwork with full or half brick, as required. Do not fill in concealed work with spalls, small bats, or excess mortar.
7. Lay up brickwork level and plumb, or as otherwise required to match existing.

D. Re-pointing:

1. After careful routing and cleaning joints, wet joints thoroughly and then apply fresh, pre-hydrated mortar. Allow water to soak into joints, but joints should not be visibly wet with standing water during tuckpointing.
2. Fill mortar joints in layers not over 1/4" thick, with each layer applied with pressure as soon as previous layer has partially dried. Do not tool each layer smooth: Leave surface rough to help bond of subsequent layers. Compress the final packing as much as possible to completely fill joint. Compact joints solidly before final tooling.
3. Tool joints to match existing work which has not been repointed, or oldest joints found, unless otherwise indicated. Take care to not spread mortar over edges of brick onto exposed surfaces. Do not featheredge mortar. Cure mortar by maintaining in a damp condition for 5 days.

### 3.03 FINAL CLEANING

- A. All mortar to fully harden for approximately 30 days after completion of work, then thoroughly clean exposed masonry surfaces of excess mortar and foreign matter using stiff nylon or bristle brushes and clean water under normal pressure.
1. Use of metal scrapers or brushes will not be permitted.
  2. Use of acid or alkali cleaning agents will not be permitted.

### 3.04 STONE RESTORATION-PATCH METHOD

- A. Carefully remove loose and friable stone, dust, dirt, oil and other contaminants.
- B. Saw cut edges with a diamond blade at a 90 degree angle to eliminate feather edges. Repair zone must be 1/2" deep min.
- C. Saturate surface of stone to be repaired.
- D. Prime the prepared substrate in accordance with manufacturers instructions, while wet.
- E. Mix mortar patch in accordance with mortar manufacturers instructions.
- F. Apply materials in lifts, 1/2" minimum, 2: maximum, forcing materials against edges.
- G. Cross hatch scratch each lift to prepare surface for next lift.
- H. Overbuild 1/4", and shave to final form with trowel edge.
- I. Entire method to be performed in accordance with manufacturers detailed instructions.

- END OF SECTION -